

CLAIMS:

1. A connector comprising:  
at least one pair of contacts;  
at least one pair of terminals electrically coupled to said contacts by at least one pair of conductors; and  
a transient voltage suppression component electrically coupled to said contacts and said terminals including:  
a transient voltage suppression device and a frequency compensation device.
2. The connector of claim 1 wherein said frequency compensation device is coupled in series with said transient voltage suppression device.
3. The connector of claim 2 wherein said transient voltage suppression component is coupling said pair of conductors.
4. The connector of claim 2 wherein said frequency compensation device is an inductor.
5. The connector of claim 2 wherein one of said transient voltage suppression device and one said frequency compensation device are used for each pair of conductors.

6. The connector of claim 2 wherein two of said transient voltage suppression devices and two of said frequency compensation devices are used for each pair of conductors.
7. The connector of claim 5 wherein each of said transient voltage suppression devices is coupled to each of the first of said conductors, and each of said frequency compensation devices is coupled to each of the second of said conductors.
8. The connector of claim 6 wherein the first of said transient voltage suppression devices is coupled to each of the first of said conductors, and each of the second of said transient voltage suppression devices is coupled to each of the second of said conductors, and said frequency compensation devices are coupled to ground.
9. The connector of claim 2 wherein a first set of said transient voltage suppression device and a first set of said frequency compensation device are used for each pair of conductors and wherein two of a second set of said transient voltage suppression devices and two of a second set of said frequency compensation devices are also used for each pair of conductors.

10. The connector of claim 9 wherein each of a first set of said transient voltage suppression devices is coupled to each of the first of said conductors, and each of a first set of said frequency compensation devices is coupled to each of the second of said conductors and wherein the first of a second set of said transient voltage suppression devices is coupled to each of the first of said conductors, and each of the second of a second set of said transient voltage suppression devices is coupled to each of the second of said conductors, and said second set of frequency compensation devices are coupled to ground.
11. The connector according to claim 1 and further comprising a filter component electrically coupled to said pair of conductors.
12. The connector of claim 1 wherein said transient voltage suppression device includes a varistor.
13. The connector of claim 1 wherein said transient voltage suppression device includes a zener diode.
14. The connector of claim 1 wherein said transient voltage suppression device includes a diode.
15. The connector according to claim 1 wherein said transient voltage suppression component includes a current limiting device.

16. The connector of claim 1 wherein said transient voltage suppression device includes a voltage limiting device.
17. The connector of claim 1 wherein said transient voltage suppression device protects against electrostatic discharge.
18. The connector of claim 1 wherein said transient voltage suppression device protects against differential voltage surges.
19. The connector of claim 1 wherein said transient voltage suppression device protects against voltage surges above a certain threshold.
20. The connector of claim 4 wherein said inductor magnetically saturates itself when it encounters a transient voltage.
21. A transient voltage suppression component for use in a connector, said connector having at least one pair of contacts and at least one pair of terminals electrically coupled to said contacts by at least one pair of conductors and said transient voltage suppression component electrically coupled to said contacts and said terminals, said transient voltage suppression component comprising:  
a transient voltage suppression device and a frequency compensation device.
22. The transient voltage suppression component of claim 21 wherein said frequency compensation device is coupled in series with said transient voltage suppression device.

23. The transient voltage suppression component of claim 22 wherein said transient voltage suppression component is coupling said pair of conductors.
24. The transient voltage suppression component of claim 22 wherein said frequency compensation device is an inductor.
25. The transient voltage suppression component of claim 22 wherein one of said transient voltage suppression device and one said frequency compensation device are used for each pair of conductors.
26. The transient voltage suppression component of claim 22 wherein two of said transient voltage suppression devices and two of said frequency compensation devices are used for each pair of conductors.
27. The transient voltage suppression component of claim 25 wherein each of said transient voltage suppression devices is coupled to each of the first of said conductors, and each of said frequency compensation devices is coupled to each of the second of said conductors.
28. The transient voltage suppression component of claim 26 wherein the first of said transient voltage suppression devices is coupled to each of the first of said conductors, and each of the second of said transient voltage suppression devices is coupled to each of the second of said conductors, and said frequency compensation devices are coupled to ground.

29. The transient voltage suppression component of claim 22 wherein a first set of said transient voltage suppression device and a first set of said frequency compensation device are used for each pair of conductors and wherein two of a second set of said transient voltage suppression devices and two of a second set of said frequency compensation devices are also used for each pair of conductors.
30. The transient voltage suppression component of claim 29 wherein each of a first set of said transient voltage suppression devices is coupled to each of the first of said conductors, and each of a first set of said frequency compensation devices is coupled to each of the second of said conductors and wherein the first of a second set of said transient voltage suppression devices is coupled to each of the first of said conductors, and each of the second of a second set of said transient voltage suppression devices is coupled to each of the second of said conductors, and said second set of frequency compensation devices are coupled to ground.
31. The transient voltage suppression component according to claim 21 and further comprising a filter component electrically coupled to said pair of conductors.
32. The transient voltage suppression component of claim 21 wherein said transient voltage suppression device includes a varistor.
33. The transient voltage suppression component of claim 21 wherein said transient voltage suppression device includes a zener diode.
34. The transient voltage suppression component of claim 21 wherein said transient voltage suppression device includes a diode.

35. The transient voltage suppression component according to claim 21 wherein said transient voltage suppression component includes a current limiting device.
36. The transient voltage suppression component of claim 21 wherein said transient voltage suppression device includes a voltage limiting device.
37. The transient voltage suppression component of claim 21 wherein said transient voltage suppression device protects against electrostatic discharge.
38. The transient voltage suppression component of claim 21 wherein said transient voltage suppression device protects against differential voltage surges.
39. The transient voltage suppression component of claim 21 wherein said transient voltage suppression device protects against voltage surges above a certain threshold.
40. The transient voltage suppression component of claim 24 wherein said inductor magnetically saturates itself when it encounters a transient voltage.
41. A circuit, comprising:  
a conductor;.  
a transient voltage suppression component electrically coupled to said conductor  
said transient voltage suppression component including:  
a transient voltage suppression device and a frequency compensation device.

42. The circuit according to claim 1 wherein said transient voltage suppression component is inductively coupled to said conductor.
43. A method of protecting a circuit comprising:  
introducing a signal having a frequency to the circuit;  
shunting a transient voltage introduced to the circuit using a transient voltage suppression device; and  
frequency compensating for the shift in frequency caused by the capacitance of the transient voltage suppression device.
44. The method of claim 43 and further comprising the step of inductively coupling the transient voltage suppression device with a frequency compensation device.